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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,856	03/06/2002	Yasuo Ohtomo	1122-001	8601

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EXAMINER

RONES, CHARLES

ART UNIT

PAPER NUMBER

2175

DATE MAILED: 04/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,856

Applicant(s)

OHTOMO, YASUO

Examiner

Charles L. Rones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3 and 7-15 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 7-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoppe et al. U.S. Patent No. 5,515,488 ('Hoppe').

Hoppe discloses:

As to claim 1,

a data acquisition means for acquiring results of a data search based on certain search criteria; See 3:35-55

an image processing means for representing, as a set for each of said search criteria, the results of said data search acquired by said data acquisition means and converting each set to an n-polygonal image, where n is a natural number, and having an area corresponding to the magnitude of element count of each set; See 9:56-67; 10:1-67; and

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a display control means for causing each n-polygonal image converted by said image processing means to be displayed on a predetermined display device, wherein each of said multiple n-polygonal images is displayed within the same display region while maintaining a relative relationship with other n-polygonal images based on said search criteria; See 10:1-67.

As to claim 2,

wherein said image processing means converts each of said sets to an n-polygonal image having an area corresponding to the magnitude of element count of each of said sets and a relative relationship in position based on said search criteria; See 10:1-67.

As to claim 3,

wherein said image processing means represents the data search result obtained by a Boolean AND operation of said search criteria as an overlap of the n-polygonal images converted from the respective sets of said search criteria wherein logical operators are deemed to include all Boolean operators such as AND; See 5:25-30; 10:1-67.

As to claim 7,

an image storage means for storing said n-polygonal image converted as the data search results, where only a portion of said search criteria differs, according to said search criteria that are commonly shared by the rest of said search criteria, wherein said image processing means causes multiple n-polygonal images that vary with changes in a portion of said search criteria to be displayed within the same display region of said display device; See 10:1-67; 12:22-40.

As to claim 8,

wherein when the shape of said n-polygonal image is identified by a radius and argument of its polar coordinates and the area of said n-polygonal image is calculated by an operational expression having said radius and n as its variables, said image processing means places in the same position the poles of said polar coordinates and their initial lines for a plurality of n-polygonal images displayed within said same display region; See 3:35-55; 10:1-67; 11:30-37.

As to claim 9,

wherein said n-polygonal image is used as a Venn diagram image; See 9:57-67.

As to claim 10,

a means for changing the value of n for said n -polygonal image a posteriori; See 7:40-67; 10:1-67.

As to claim 11,

representing a result of a data search based on certain search criteria as a set according to each of said search criteria; See 3:35-55;

converting each of said sets to an n -polygonal image having an area corresponding to the magnitude of element count of each of said sets and a relative relationship in position among said search criteria; See 10:1-67; and

displaying each converted n -polygonal image on a predetermined display device, wherein each of the multiple n -polygonal images is displayed within the same display region while maintaining a relative relationship with other n -polygonal images based on said search criteria; See 10:1-67.

As to claim 12,

obtaining each of said n -polygonal images under a plurality of search criteria where only a time-frame element is different is stored; See 3:56-67; 5:25-30; and

simultaneously displaying said n -polygonal images at all time frames in the same coordinate system on said display device; See 11:30-67; 12:23-40.

As to claim 13,

obtaining each of said n-polygonal images under a plurality of search criteria where only a time-frame element is different is stored; See 3:56-67; 5:25-30; and simultaneously displaying said n-polygonal images at different time frames in the same coordinate system on said display device; See 11:30-67; 12:23-40.

As to claim 14,

a data acquisition means for acquiring results of data search based on said search criteria; See 3:35-55;

an image processing means for representing said search results acquired by said data acquisition means as sets according to each of said search criteria and converting each of said sets to an n-polygonal image where n is a natural number, and having an area corresponding to the magnitude of element count of each of said sets; See 10:1-67; and

a display control means for causing a predetermined display device to display each of said n-polygonal images converted by said image processing means, wherein said computer program causes each of said multiple n-polygonal images to be displayed within the same display region on said display device while maintaining a relative relationship with other n-polygonal images based on said search criteria; See 10:1-67.

As to claim 15,

a computer-readable storage medium for storing said computer program; See 6:1-21.

Allowable Subject Matter

Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an Examiner's statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose, make obvious, or otherwise suggest the structure of the applicant's wherein said image processing means derives said n-polygonal image by repeating a convergent calculation for drawing under certain restricting parameters, wherein said convergent calculation is initiated under restricting parameters where a convex polygon appears, and if said convergence does not appear as a convex polygon after repeating a certain number of times, the restricting parameters are switched so that a concave polygon appears together with the other limitations of the independent claims. The dependent claims being further limiting and definite are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably

accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Rones whose telephone number is 703-306-3030. The examiner can normally be reached on Monday-Thursday 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles L. Rones
Primary Examiner
Art Unit 2175

April 27, 2004